

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of simultaneously applying a pre-selected dye image to multiple surfaces of a three dimensional object, comprising the steps of:

a) providing a three dimensional object having an outer plastic surface for receiving a dye image, the three dimensional object having a top surface and a plurality of side surfaces adjacent to and not co-planar with the top surface; the top surface and plurality of side surfaces providing an object contour;

b) placing a dye image carrier sheet in registration over the three dimensional object, the image carrier sheet having a pre-selected dye image printed thereon and carrying a flexible heating element; the flexible heating element being an electrical resistance heater circuit in the form of a photochemically etched metallized substrate and conforming to the object contour;

c) lowering a flexible membrane over the three dimensional object and the image carrier sheet;

d) establishing a vacuum under the membrane to cause the image carrier sheet and flexible heating element to conform into pressurized communication with the top surface and side surfaces of the three dimensional object; ~~and~~

passing electricity through the electrical resistance heater circuit to cause the temperature of the flexible heating element to rise; and

e) heating the image carrier sheet with the flexible heating element to provide substantially uniform heat to the object contour to cause the dye image to transfer from the carrier sheet onto the top surface and side surfaces of the three dimensional object.

2. (original) The method of claim 1, wherein the image carrier sheet comprises a substrate having a dye-receptive layer coated thereon.

3. (original) The method of claim 1, wherein the image carrier sheet comprises a film substrate.

4. (currently amended) The method of claim 3, wherein the image carrier sheet comprises a film substrate bonded to a metal foil, the metal foil having an etched electrical circuit therein to provide the flexible heating element.

5. (currently amended) The method of claim 1, wherein the ~~image carrier sheet comprises a fabric~~ substrate is a fabric.

6. (canceled)

7. (canceled)

8. (currently amended) The method of claim ~~7~~ 1, wherein the etched metallized ~~fabric~~ substrate is coated with a heat-resistant, electrically-insulating lacquer.

9. (original) The method of claim 1, further comprising the step of pre-heating the image carrier sheet prior to the step of establishing the vacuum.

10. (original) The method of claim 1, further comprising the step of pre-heating the membrane prior to the step of establishing the vacuum.

11. (currently amended) A method of simultaneously applying a pre-selected dye image to multiple surfaces of a three dimensional object, comprising the steps of:

a) providing a three dimensional object having an outer plastic surface for receiving a dye image, the three dimensional object having a top surface and a plurality of side surfaces adjacent to and not co-planar with the top surface; the top surface and plurality of side surfaces providing a printing surface with an object contour;

b) placing a dye image carrier sheet in registration over the three dimensional object, the image carrier sheet having a pre-selected dye image printed thereon;

c) lowering a flexible membrane over the three dimensional object and the image carrier sheet, the membrane carrying a flexible heating element; the flexible heating element being an electrical resistance heater circuit in the form of a photochemically etched metallized substrate and conforming to the object contour;

d) establishing a vacuum under the membrane to cause the image carrier sheet and flexible heating element to conform into pressurized communication with the top surface and side surfaces of the three dimensional object; ~~and~~

passing electricity through the electrical resistance heater circuit to cause the temperature of the flexible heating element to rise; and

e) heating the image carrier sheet with the flexible heating element to provide substantially uniform heat to the object contour to cause the dye image to transfer from the carrier sheet onto the top surface and side surfaces of the three dimensional object.

12. (original) The method of claim 11, further comprising the step of pre-heating the image carrier sheet prior to the step of establishing the vacuum.

13. (original) The method of claim 11, further comprising the step of pre-heating the membrane prior to the step of establishing the vacuum.

14. (original) The method of claim 11, wherein the flexible membrane comprises silicone rubber.

15. (currently amended) A method of simultaneously applying a pre-selected dye image to multiple surfaces of a three dimensional object, comprising the steps of:

a) providing a three dimensional object having an outer plastic surface for receiving a dye image, the three dimensional object having a top surface and a plurality of side surfaces adjacent to and not co-planar with the top surface; the top surface and plurality of side surfaces providing an object contour;

b) placing a dye image carrier sheet in registration over the three dimensional object, the image carrier sheet having a pre-selected dye image printed thereon and carrying a flexible heating element; the flexible heating element being an electrical resistance heater circuit in the form of a photochemically etched metallized substrate and conforming to the object contour;

c) establishing a vacuum under the image carrier sheet to cause the image carrier sheet and flexible heating element to conform into pressurized communication with the top surface and side surfaces of the three dimensional object; ~~and~~

passing electricity through the electrical resistance heater circuit to cause the temperature of the flexible heating element to rise; and

d) heating the image carrier sheet with the flexible heating element to provide substantially uniform heat to the object contour to cause the dye image to transfer from the carrier sheet onto the top surface and side surfaces of the three dimensional object.

16. (original) The method of claim 15, further comprising the step of pre-heating the image carrier sheet prior to the step of establishing the vacuum.

17. (new) A method of simultaneously applying a pre-selected dye image to multiple surfaces of a three dimensional object, comprising the steps of:

providing a three dimensional object having an outer plastic surface for receiving a dye image, the three dimensional object having a top surface and a plurality of side surfaces adjacent to and not co-planar with the top surface;

placing a dye image carrier sheet in registration over the three dimensional object, the image carrier sheet having a pre-selected dye image printed thereon;

lowering a flexible membrane over the three dimensional object and the image carrier sheet;

pre-heating the flexible membrane;

establishing a vacuum under the membrane, after pre-heating the flexible membrane, to cause the image carrier sheet to conform into pressurized communication with the top surface and side surfaces of the three dimensional object; and

heating the image carrier sheet with the flexible heating element to cause the dye image to transfer from the carrier sheet onto the top surface and side surfaces of the three dimensional object.

18. (new) The method of claim 17, wherein the image carrier sheet comprises a substrate having a dye-receptive layer coated thereon.

19. (new) The method of claim 17, wherein the image carrier sheet comprises a film substrate.

20. (new) The method of claim 19, wherein the image carrier sheet comprises a film substrate bonded to a metal foil, the metal foil having an etched electrical circuit therein.
21. (new) The method of claim 17, wherein the image carrier sheet comprises a fabric substrate.
22. (new) The method of claim 21, wherein the image carrier sheet comprises a metallized fabric substrate.
23. (new) The method of claim 22, wherein the metallized fabric is photochemically etched to form an electrical circuit therein.
24. (new) The method of claim 23, wherein the etched metallized fabric is coated with a heat-resistant, electrically-insulating lacquer.
25. (new) The method of claim 17, further comprising the step of pre-heating the image carrier sheet prior to the step of establishing the vacuum.
26. (new) The method of claim 17, wherein the step of heating the image carrier sheet is carried out by a flexible heating element provided on the flexible membrane.

27. (new) A method of simultaneously applying a pre-selected dye image to multiple surfaces of a three dimensional object, comprising the steps of:

providing a three dimensional object having an outer plastic surface for receiving a dye image, the three dimensional object having a top surface and a plurality of side surfaces adjacent to and not co-planar with the top surface;

placing a dye image carrier sheet in registration over the three dimensional object, the image carrier sheet having a pre-selected dye image printed thereon;

lowering a flexible membrane over the three dimensional object and the image carrier sheet;

pre-heating the flexible membrane;

establishing a vacuum under the membrane, after pre-heating the membrane, to cause the image carrier sheet to conform into pressurized communication with the top surface and side surfaces of the three dimensional object; and

heating the image carrier sheet with the flexible heating element to cause the dye image to transfer from the carrier sheet onto the top surface and side surfaces of the three dimensional object.

28. (new) The method of claim 27, further comprising the step of pre-heating the image carrier sheet prior to the step of establishing the vacuum.

29. (new) The method of claim 27, wherein the step of heating the image carrier sheet is carried out by a flexible heating element provided on the flexible membrane.

30. (new) The method of claim 27, wherein the flexible membrane comprises silicone rubber.